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Marketing Margins for White Bread

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UNITED STATES DEPARTMENT OF AGRICULTURE
Economic Research Service
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Even a half-cent rise in the price of bread is of national interest, particularly when bread prices have been increasing each of the last 16 years. By 1961, average retail prices were 7.4 cents per pound loaf above the 1947–49 average, an increase of 55 percent. The Consumer Price Index for all foods purchased for home consumption rose 18 percent in this period. The largest annual rise of 1.4 cents occurred between 1950 and 1951. The smallest rise of 0.1 cent took place between 1948 and 1949.

The farm value of wheat and all other ingredients used in making a pound of bread declined 0.4 cent between 1947–49 and 1961. Thus, the marketing margin for bread increased 7.8 cents, the amount of the rise in the retail price plus the decline in the farm value of raw materials. The rise in bread prices corresponds closely to the rise in costs of producing and distributing bakery products.

This report shows the changes in bread prices, margins, and costs from 1947–49 through 1961. It is one of several reports on food marketing costs and margins prepared by the U.S. Department of Agriculture, and is part of a broad program of research designed to reduce the cost of marketing farm products.

The Department keeps current data on bread prices and margins, and will continue to publish them periodically in "The Marketing and Transportation Situation."

This revision was prepared by J. C. Eiland, agricultural economist, Economic Research Service.

Revised November 1962

The difference between the price the farmer gets for a given quantity of wheat and other ingredients and the price the consumer pays for the bread that can be made from them is termed the "PRICE SPREAD, or MARKETING MARGIN." The marketing margin includes all charges for handling, storing, transporting, and processing wheat and other ingredients, and for baking, distributing, and retailing the bread.

Marketing Margins for White Bread

Marketing Economics Division, Economic Research Service

Bread prices have risen every year since 1945. Consumers in 1961 paid an average price of 20.9 cents for a 1-pound loaf of bread, a new high, 55 percent above the 13.5 cents paid in 1947–49. The increase in 1961 was 0.6 cent a loaf over 1960. Most of the rise in retail bread prices since 1947–49 has come from increases in the baker's margin. The rise took place without any significant changes in services rendered such as have occurred in a number of other food items.

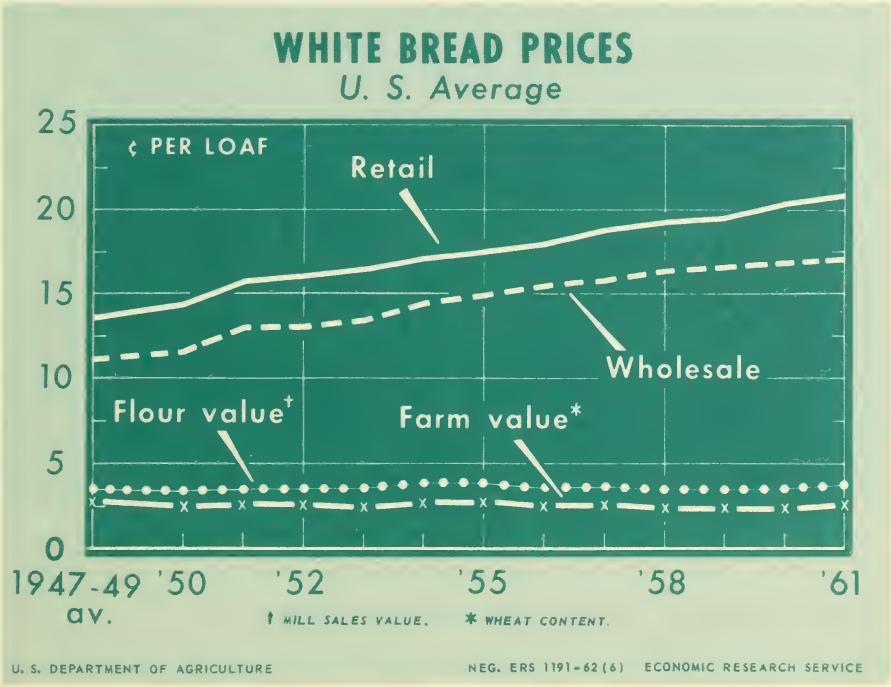


FIGURE 1

During 1947–49, if the wheat farmer had exchanged a bushel of wheat for white bread at the grocery store, he would have received on the average about 15.9 loaves of the 66.9 loaves produced from a bushel of wheat. The remaining 51 loaves plus the millfeed would have gone to pay for transportation, storage, milling, baking, selling and distribution, and retailing, or in general terms, for marketing services. In 1961, the farmer would have received only 8.6 loaves for a bushel of wheat that then produced about one more loaf of bread than in 1947–49. Enough wheat to produce 59.3 loaves plus the millfeed would have gone for marketing services in 1961.

FARMER'S SHARE DECREASED

The farm value decreased from 3.3 cents in 1947–49 to 2.9 cents in 1961 (table 1). This decrease in farm value plus the increase in the retail price was accounted for by an increase in marketing charges. Although the farm value of the ingredients increased 0.1 cent in 1961 from the record low level of the period in 1959 and 1960, the farmer's share of the retail price declined to about 14 percent in 1960 and 1961 from 24 percent in 1947–49.

The farmer's percentage share of the retail price has decreased from the level of the preceding year in 8 of the 14 years since 1947.

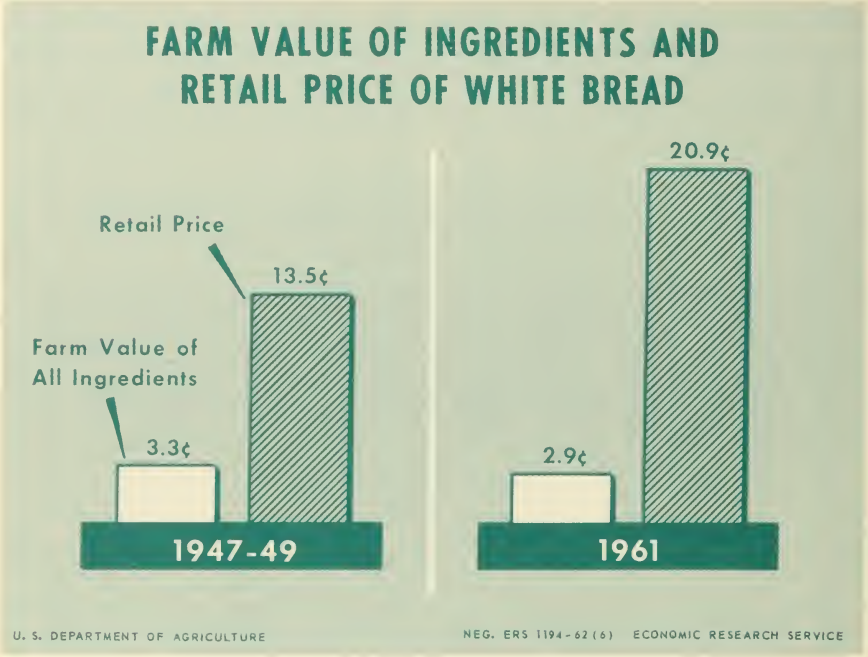


FIGURE 2

WHY PRICE SPREAD WIDENED

The widening of the price spread between 1947–49 and 1961 was due primarily to higher costs for baking and distributing bread. Hourly earnings of workers in bakeries in 1961 were approximately $1.03 higher than in 1947–49.

Much of this added cost appears to have been passed on to consumers. Other noningredient costs such as wrapping materials also rose. Retailers' margins have increased. Although hourly earnings in the flour milling industry increased, flour prices did not change as much as bread prices. Instead, flour prices tended to reflect the cost of wheat to the miller until 1956 when

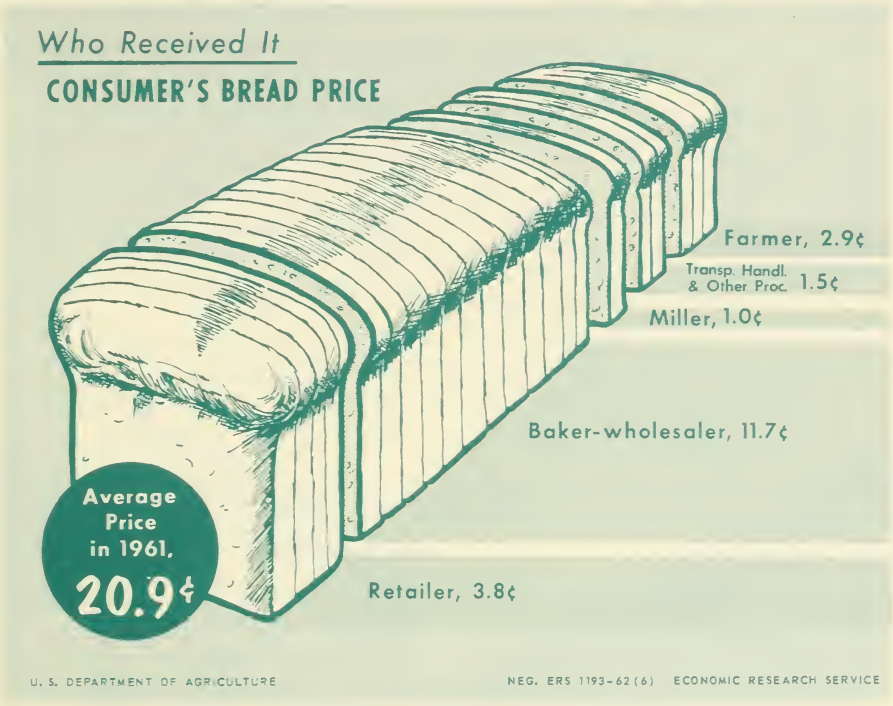


FIGURE 3

an upward trend started in flour millers' margins (table 2).

Rises in cost of items used by firms in the marketing process, and thus their margins, accounted for the 55-percent increase in the retail price of bread between 1947–49 and 1961. During this period the baker-wholesaler's margin rose 5.7 cents and accounted for about three-

TABLE 1.—Distribution of retail price of bread, by recipients, 1947–49 and 1961

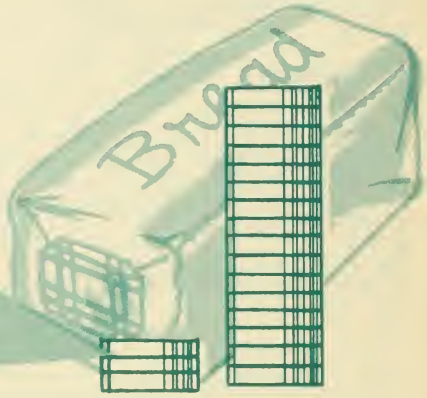
Recipient	1947–49		1961	
	Actual amount	Percentage	Actual amount	Percentage
	Cents	*Percent*	*Cents*	*Percent*
Farmers	3. 3	24	2. 9	14
Grain elevators, transportation agencies, and processors of nonflour ingredients	1. 2	9	1. 5	7
Flour mills	. 6	5	1. 0	5
Baker-wholesalers	6. 0	44	11. 7	56
Grocers	2. 4	18	3. 8	18
Total	13. 5	100	20. 9	100

fourths of the increase in the retail price.

In 1961 estimated baker-wholesaler labor costs, excluding fringe benefits, for producing and distributing a 1-pound loaf of bread were nearly 3.5 cents higher than in 1945 (table 3). Labor cost increases accounted for nearly 50 percent of the rise in the baker-wholesaler margin. His margin rose from 54 to 68 percent of the wholesale price from 1947–49 to 1961.

The miller's flour margin was about stable until 1956 when it began to increase. Retailers' and processors' margins increased moderately during this period.

FARMER GETS SMALL PART OF BREAD DOLLAR



Only 2.9 cents of the average price—20.9 cents—paid by consumers for a pound of white bread in 1961 was returned to farmers for wheat and other ingredients of farm origin such as lard, sugar, and dried milk (table 1). Wheat farmers received about 2.4 cents in 1961, 2.7 cents in 1947–49, and a low of 2.3 cents in 1958–60. Even if the farmer had donated his wheat, white bread still would have cost consumers about 18.5 cents per loaf in 1961. Alternatively, if farm prices had not changed and bread prices had risen only as much as all foods for home consumption, the retail price of bread would have been about 15.9 cents a pound loaf in 1961 instead of 20.9 cents.

Or, if the farmer had received a 76-percent increase in the price of wheat from 1947–49 to 1961—the same as marketing margins increased—he would have received about $3.77 per bushel, and a loaf of bread would have cost the consumer about 23.5 cents in 1961. This would have added 2.6 cents to the retail price of bread, and the wheat farmer would have received about 5.0 cents of the average retail price in 1961.

Farm value of other ingredients has been 0.5 cent per pound of bread since 1959, a low point previously reached only in 1950 and 1955 since 1947–49. It reached a high point in 1951 of 0.7 cent.

FARMER'S PRICES DON'T GOVERN BREAD PRICES

Farm values of wheat, sugarbeets or sugarcane, milk, and hogs (lard) are such a small portion (14 percent in 1961) of the retail price of bread that large fluctuations in farm prices can take place with little effect on the price of the finished product.

The farmer's share is not significantly altered by the choice of bread formula because the amounts of nonflour ingredients are small. To 100 pounds of flour are added 2½ to 4½ pounds of lard, 6 to 9 pounds of sugar, up to 5 pounds of milk, plus minor ingredients and water to produce 150 to 165 pounds of baked bread. Shifts of ingredients within the ranges possible do not have a significant effect on the farmer's share, or the price of bread.

MILLER'S FLOUR MARGIN INCREASES SINCE 1955

From 1947–49 through 1955, the miller's flour margin for milling the wheat needed to produce the 0.641 pound of flour used in making a 1-pound loaf of bread was stable at 0.6 cent (table 2). After 1955, the miller's flour margin gradually increased. In 1961, it was 67 percent higher than in 1955 at 1.0 cent per pound loaf of bread.

Despite an estimated 89-percent increase in hourly earnings of grain mill production workers between 1947–49 and 1961, labor costs of producing a unit of flour have increased only moderately. The increase in the miller's flour margin since 1955 appears to be associated with an increase in costs and with an increase in the amount of flour extracted per bushel of wheat milled.

TABLE 2.—White pan bread: Estimated retail and other gross margins, and estimated farm value of ir

Year and quarter	Retail price [2]	Retail margin [3]	Whole-sale price [4]
	Cents	*Cents*	*Cents*
1947–49 average	13. 5	2. 4	11. 1
1950	14. 3	2. 7	11. 6
1951	15. 7	2. 7	13. 0
1952	16. 0	3. 0	13. 0
1953	16. 4	2. 9	13. 5
1954	17. 1	2. 7	14. 4
1955	17. 5	2. 6	14. 9
1956	17. 9	2. 6	15. 3
1957	18. 8	3. 1	15. 7
1958	19. 3	3. 1	16. 2
1959	19. 7	3. 1	16. 6
1960	20. 3	3. 4	16. 9
1961	20. 9	3. 8	17. 1
1960:			
January–March	19. 9	3. 2	16. 7
April–June	20. 1	3. 4	16. 7
July–September	20. 5	3. 5	17. 0
October–December	20. 8	3. 7	17. 1
1961:			
January–March	20. 9	3. 8	17. 1
April–June	20. 9	3. 8	17. 1
July–September	20. 9	3. 8	17. 1
October–December	21. 0	3. 9	17. 1

[1] The retail price, farm value, and farm-retail spread or marketing margin for the years 1919–56 were published in *Farm-Retail Spreads for Food Products*, U.S. Dept. of Agr., Misc. Pub. 741, Nov. 1957, p. 117. Comparable data for the other series in this table are not available for the years before 1947.

[2] Average of retail prices in urban areas reported by Bureau of Labor Statistics, with adjustments for 1954 and 1955.

[3] Spread between retail and wholesale prices.

[4] Derived from wholesale prices published by the Bureau of Labor Statistics and trade data.

[5] Spread between wholesale price and cost to the baker of all ingredients.

[6] Cost of flour, shortening, nonfat dry milk, sugar, and other ingredients in a pound of bread, adjusted to level of cost to baker as reported in the Census of Manufactures.

[7] Weighted average wholesale value of 0.641 lb. of several types of bread flour in 5 markets, adjusted to the level of cost to baker as reported in the Census of Manufacturers.

[8] Weighted average wholesale value of 0.641 lb. of several types

lesale prices of a 1-pound loaf, retailer's, baker-wholesaler's, miller's, and ients, average 1947–1949, annual 1950–1961, and quarterly 1960–61 [1]

er- le- r in [5]	Cost to baker		Mill sales value of flour [8]	Miller's flour margin [9]	Cost of wheat to miller [10]	Other margin [11]	Farm value	
	All ingredients [6]	Flour [7]					Wheat [12]	All ingredients [13]
nts	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
0	5. 1	3. 5	3. 4	0. 6	2. 8	1. 2	2. 7	3. 3
9	4. 7	3. 4	3. 3	. 6	2. 7	1. 1	2. 5	3. 0
8	5. 2	3. 6	3. 4	. 6	2. 8	1. 3	2. 6	3. 3
1	4. 9	3. 5	3. 4	. 6	2. 8	1. 1	2. 6	3. 2
4	5. 1	3. 7	3. 5	. 6	2. 9	1. 4	2. 5	3. 1
9	5. 5	4. 0	3. 8	. 6	3. 2	1. 6	2. 7	3. 3
5	5. 4	4. 0	3. 8	. 6	3. 2	1. 6	2. 7	3. 2
0	5. 3	3. 9	3. 7	. 7	3. 0	1. 4	2. 6	3. 2
3	5. 4	3. 9	3. 7	. 8	2. 9	1. 4	2. 6	3. 2
9	5. 3	3. 9	3. 6	. 8	2. 8	1. 6	2. 3	2. 9
5	5. 1	3. 8	3. 5	. 8	2. 7	1. 5	2. 3	2. 8
6	5. 3	3. 9	3. 6	. 9	2. 7	1. 6	2. 3	2. 8
7	5. 4	4. 0	3. 7	1. 0	2. 7	1. 5	2. 4	2. 9
5	5. 2	3. 8	3. 5	. 8	2. 7	1. 6	2. 3	2. 8
4	5. 3	3. 9	3. 6	. 9	2. 7	1. 6	2. 3	2. 8
7	5. 3	3. 9	3. 6	1. 0	2. 6	1. 5	2. 3	2. 8
8	5. 3	3. 9	3. 6	1. 0	2. 6	1. 5	2. 3	2. 8
8	5. 3	3. 9	3. 6	1. 0	2. 6	1. 4	2. 4	2. 9
7	5. 4	3. 9	3. 7	1. 0	2. 7	1. 5	2. 3	2. 9
6	5. 5	4. 0	3. 8	1. 0	2. 8	1. 5	2. 4	3. 0
6	5. 5	4. 1	3. 8	. 9	2. 9	1. 6	2. 4	3. 0

of bread flour in 5 markets, adjusted to mill sales level as reported in the Census of Manufactures.

[9] Spread between cost of wheat to miller and sales value of flour.

[10] Weighted average wholesale value in 6 markets of major classes and grades of wheat used for milling bread flour, adjusted to level of cost to miller as reported in the Census of Manufactures and further adjusted to eliminate imputed value of millfeed products.

[11] Margins for transporting, handling, and storing all ingredients and for processing ingredients other than flour. This margin is a residual figure.

[12] Payment to farmers for wheat less imputed value of millfeed byproducts, based on average price received by farmers for all wheat; payment for 0.882 lb. since July 1957, and 0.894 lb. prior to that date.

[13] Value at prices received by farmers, less byproduct allowances, for the quantity of wheat and other farm products yielding ingredients used in a pound loaf of white bread.

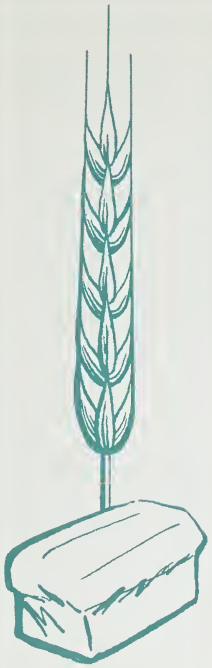


TABLE 2.—White pan bread: Estimated retail and wholesale prices of a 1-pound loaf, retailer's, baker-wholesaler's, miller's, and other gross margins, and estimated farm value of ingredients, average 1947–1949, annual 1950–1961, and quarterly 1960–61 [1]

Year and quarter	Retail price [2]	Retail margin [3]	Wholesale price [4]	Baker-wholesaler margin [5]	Cost to baker		Mill sales value of flour [8]	Miller's flour margin [9]	Cost of wheat to miller [10]	Other margin [11]	Farm value	
					All ingredients [6]	Flour [7]					Wheat [12]	All ingredients [13]
	Cents	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
1947–49 average	13. 5	2. 4	11. 1	6. 0	5. 1	3. 5	3. 4	0. 6	2. 8	1. 2	2. 7	3. 3
1950	14. 3	2. 7	11. 6	6. 9	4. 7	3. 4	3. 3	. 6	2. 7	1. 1	2. 5	3. 0
1951	15. 7	2. 7	13. 0	7. 8	5. 2	3. 6	3. 4	. 6	2. 8	1. 3	2. 6	3. 3
1952	16. 0	3. 0	13. 0	8. 1	4. 9	3. 5	3. 4	. 6	2. 8	1. 1	2. 6	3. 2
1953	16. 4	2. 9	13. 5	8. 4	5. 1	3. 7	3. 5	. 6	2. 9	1. 4	2. 5	3. 1
1954	17. 1	2. 7	14. 4	8. 9	5. 5	4. 0	3. 8	. 6	3. 2	1. 6	2. 7	3. 3
1955	17. 5	2. 6	14. 9	9. 5	5. 4	4. 0	3. 8	. 6	3. 2	1. 6	2. 7	3. 2
1956	17. 9	2. 6	15. 3	10. 0	5. 3	3. 9	3. 7	. 7	3. 0	1. 4	2. 6	3. 2
1957	18. 8	3. 1	15. 7	10. 3	5. 4	3. 9	3. 7	. 8	2. 9	1. 4	2. 6	3. 2
1958	19. 3	3. 1	16. 2	10. 9	5. 3	3. 9	3. 6	. 8	2. 8	1. 6	2. 3	2. 9
1959	19. 7	3. 1	16. 6	11. 5	5. 1	3. 8	3. 5	. 8	2. 7	1. 5	2. 3	2. 8
1960	20. 3	3. 4	16. 9	11. 6	5. 3	3. 9	3. 6	. 9	2. 7	1. 6	2. 3	2. 8
1961	20. 9	3. 8	17. 1	11. 7	5. 4	4. 0	3. 7	1. 0	2. 7	1. 5	2. 4	2. 9
1960:												
January–March	19. 9	3. 2	16. 7	11. 5	5. 2	3. 8	3. 5	. 8	2. 7	1. 6	2. 3	2. 8
April–June	20. 1	3. 4	16. 7	11. 4	5. 3	3. 9	3. 6	. 9	2. 7	1. 6	2. 3	2. 8
July–September	20. 5	3. 5	17. 0	11. 7	5. 3	3. 9	3. 6	1. 0	2. 6	1. 5	2. 3	2. 8
October–December	20. 8	3. 7	17. 1	11. 8	5. 3	3. 9	3. 6	1. 0	2. 6	1. 5	2. 3	2. 8
1961:												
January–March	20. 9	3. 8	17. 1	11. 8	5. 3	3. 9	3. 6	1. 0	2. 6	1. 4	2. 4	2. 9
April–June	20. 9	3. 8	17. 1	11. 7	5. 4	3. 9	3. 7	1. 0	2. 7	1. 5	2. 3	2. 9
July–September	20. 9	3. 8	17. 1	11. 6	5. 5	4. 0	3. 8	1. 0	2. 8	1. 5	2. 4	3. 0
October–December	21. 0	3. 9	17. 1	11. 6	5. 5	4. 1	3. 8	. 9	2. 9	1. 6	2. 4	3. 0

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[9] Spread between cost of wheat to miller and sales value of flour.

[10] Weighted average wholesale value in 6 markets of major classes and grades of wheat used for milling bread flour, adjusted to level of cost to miller as reported in the Census of Manufactures and further adjusted to eliminate imputed value of millfeed products.

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[12] Payment to farmers for wheat less imputed value of millfeed byproducts, based on average price received by farmers for all wheat; payment for 0.882 lb. since July 1957, and 0.894 lb. prior to that date.

[13] Value at prices received by farmers, less byproduct allowances, for the quantity of wheat and other farm products yielding ingredients used in a pound loaf of white bread.

HANDLING, TRANSPORTATION, AND OTHER PROCESSING CHARGES UP

Between the farm gate and the consumer's table, several handling and processing steps take place and each has a cost. The difference between the farm value of ingredients and their value at the bakery, less the mill margin, constitutes marketing charges for storage, insurance, transportation, and handling all ingredients, and for processing ingredients other than flour. After 1947–49, these charges fluctuated between 1.1 cents and 1.6 cents a loaf and moved slowly upward to 1.5 cents in 1961.

Despite this upward trend, costs of performing these essential services remain a small part of the price of a loaf of bread. After a bushel of wheat is delivered by the farmer to a country elevator, it moves to a flour mill as much as 1,600 miles away, perhaps stopping at a terminal elevator on the way, all for approximately 77 cents. The cost of rail transportation of wheat and flour in 1959 was a little over 0.5 cent per loaf of bread. This was possible despite an increase of 82 percent in rail rates on wheat between 1946 and 1961.

WHOLESALE BAKERY MARGINS AND COSTS UP

From the mill, flour moves by rail or truck to the bakery. There the number of services performed multiplies swiftly. Before the finished loaf of bread is placed in the grocery, its ingredients have been stored, processed for baking, and baked; and the bread has been sliced, wrapped, and delivered.

The bakery margin consists of the difference between the cost of ingredients to the bakery and the selling price of bread to either the grocer, for wholesale bakers, or to the consumer, for house-to-house, chainstore, and retail bakeries. Wholesale bakeries account for the largest volume of baked goods. It is estimated that wholesale bakeries sold white bread to grocery stores in 1961 for approximately 17.1 cents per pound. Deducting from this the cost of ingredients (5.4 cents) gives the wholesale bakery a margin of 11.7 cents (table 2).

Hourly earnings of production workers employed in plants producing all types of bakery products rose about 90 percent between 1947–49 and 1961 (table 4). Part of the

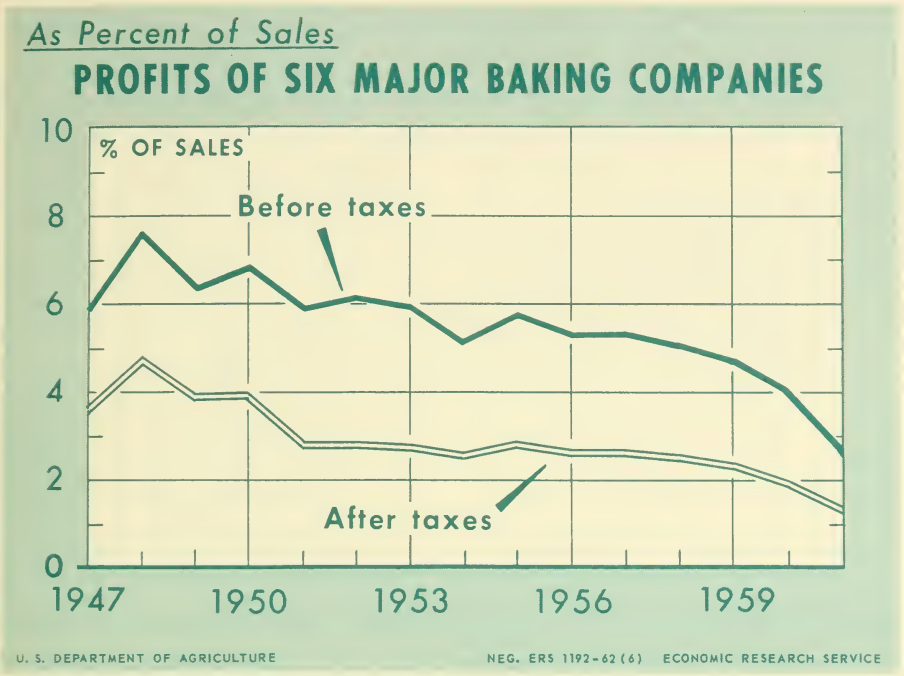


FIGURE 4

increase took place each year. In 1961 about 5.5 cents of the 11.7-cent baker-wholesaler's margin per loaf was used to pay wages and salaries (table 3). In 1945 wages and salaries represented about 2.0 cents of the baker's 4.4-cent margin.

In addition, fringe benefits, social security taxes, and compensation of officers together tripled during the period. In 1945, these three items combined represented 0.18 cent per loaf and in 1961 about 0.52 cent.

The baking industry has been meeting the challenge of rising wage rates by increased production labor output through mechanization. Bulk methods of handling flour are replacing bag handling methods and are cutting costs. Flour can now be delivered in portable bins or moved by air pressure through tubes from trucks or rail cars into storage bins, whence it flows by gravity in many instances to an automated process, which may offer production savings of over a cent a pound loaf of bread.

Offsetting these efforts is the growing acceptance of a 5-day delivery-selling week and provision for many of the so-called fringe benefits. Traditionally, bakery products have been delivered 6 days a week. Many bakeries use either of two alternatives. By one, an extra driver-salesman is hired for every five routes and he substitutes for a different routeman each day, Monday through Friday. Stores continue to receive fresh merchandise 6 days a week. This system adds the extra cost of the "swingman," or substitute, to the bread distribution cost, plus the difficult-to-measure factor of possibly lower productivity of the swingman who

TABLE 3.—Estimated wholesale costs, margin, and price for a 1-pound loaf of white bread in the United States, 1945, 1950, 1955, and 1961 [1]

Item	1945	1950	1955	1961
	Cents	*Cents*	*Cents*	*Cents*
Operating costs and profits:				
Wages and salaries	2. 01	3. 18	4. 46	5. 46
Fringe benefits, social security tax, and officers' compensation	. 18	. 26	. 42	. 52
Packaging and wrapping material	. 45	. 76	1. 09	1. 39
Delivery other than wages and salaries	. 36	. 54	. 81	1. 02
Advertising, promotion, and products bought for resale	. 24	. 40	. 67	. 90
Other costs	. 89	1. 30	1. 79	2. 08
Profits (after tax)	. 24	. 46	. 36	. 33
Baker-wholesaler margin	4. 37	6. 90	9. 60	11. 70
Ingredient costs	2. 91	4. 70	5. 30	5. 40
Sales (price at wholesale)	7. 28	11. 60	14. 90	17. 10

[1] Based on data for 18 multiple-unit and 18 single-unit wholesale bakeries presented in *Costs and Margin Trends in the Baking Industry,* Senate Committee on Agriculture and Forestry report, May 1, 1957; marketing margins for white bread, published regularly by USDA; and 1961 estimates considering U.S. average prices and trends of 6 leading bakery companies.

travels a different route every day. Opposed to this is the straight 5-day plan where no merchandise is delivered on one of the midweek days. Higher losses from stale bread and greater promotion costs to retain market position are said to accompany this plan.

Productivity of the driver-salesman delivery system has been declining for years. Studies indicate that the number of loaves delivered per route per week decreased approximately 30 percent during the period 1947–58.

Payments of salaries and commissions to driver-salesmen claim about as much of the sales dollar as wage payments to plant labor. This cost factor provides chainstore bakeries with their greatest cost advantage. Often working at night when street traffic is at a minimum, the chainstore driver and helper in a semitrailer drop bakery goods off at stores without giving time to either cash transactions or rack display. The latter is done by store employees. In contrast, an average wholesale bakery driver-salesman calls on 50 or so large and small grocers during store hours, transacts business with the management, and strives for favorable rack display position. In short, the wholesale bakery delivery systems developed years ago to meet the needs of the neighborhood retail grocery have become progressively more obsolete and costly. The local wholesale bakery delivery system has come to bear a closer resemblance to a retail operation than to the high-volume cost-cutting wholesale delivery system developed by chainstore bakeries to serve their outlets.

Aside from salaries and sales commissions, selling expense includes vehicle expense, advertising, overhead, and loss from stale bread.

Vehicle expense and a portion of the driver's commission often make the cost of moving a loaf of bread from a west-side city bakery to an east-side grocery store greater than the cost of transporting the wheat equivalent of the bread from western North Dakota to the east coast.

Other bakery costs per loaf also have risen (table 3). Some have more than tripled since 1945. For instance, the combined costs of advertising and promotion and of bakery products bought for resale are nearly four times what they were in 1945. Packaging and wrapping materials have more than tripled. Delivery expense, other than wages and salaries, has nearly tripled, and other items have shown gains of more than 100 percent.

Profits (after taxes) per loaf for baker-wholesalers were about twice as high in 1950 as in 1945 (table 3). In 1955 they had decreased nearly 25 percent and remained near that level in 1961, even though profits per dollar of sales have trended downward. Still, estimated profits per loaf were more than a third higher in 1961 than in 1945.

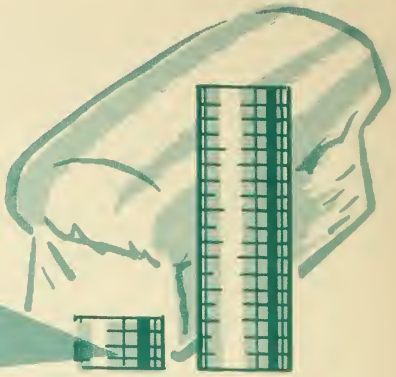
Profits (after taxes) of six leading baking companies declined from an average of 4.1 percent of sales in 1947–49 to 1.3 percent of sales in 1961 (fig. 4). Profits (after taxes) of these six leading companies declined from a high point of 18.9 percent of stockholder equity during 1947–49 to about 9.3 percent in 1960 and 6.0 percent in 1961. Profits (after taxes) for seven major flour milling companies, in comparison, declined from 14.7 percent of stockholder equity during 1947–49 to 12.0 percent in 1960.

TABLE 4.—Hourly earnings of bakery production workers, 1947–61 [1]

Year	Actual earnings including overtime (dollars)	Index (1947–49=100)
1947–49	1.15	100
1950	1.28	111
1951	1.35	117
1952	1.43	124
1953	1.51	131
1954	1.60	139
1955	1.66	144
1956	1.74	151
1957	1.81	157
1958	1.90	165
1959	1.99	173
1960	2.09	182
1961 (preliminary)	2.18	190

[1] Data are for the Bakery Products Industry (Census Standard Industrial Classification 205), which consists of the Bread and Perishable Products Industry (SIC 2051) and the Biscuit and Crackers Industry (SIC 2052). Since data are unavailable for some years for SIC 2051 and since over 75 percent of the employees in SIC 205 are employed in SIC 2051, hourly earnings for SIC 205 are used to illustrate labor costs per hour of labor employed in bread production (SIC 2051)—Bureau of Labor Statistics, *Employment and Earnings.*

RETAIL MARGIN ADVANCES WITH PRICE



Retail grocers received about 3.8 cents a loaf on an average for their services in 1961. In 1947–49 their margin was 2.4 cents. It fluctuated considerably before reaching the 3.8 level. Though the retail margin has increased in cents per loaf, it has fluctuated closely around 17 percent of the retail price, the 1947–49 average. In 1961, the retail margin was 18 percent of retail price.

The much larger total sales volume of the average grocery today compared with store volume before World War II has enabled a slower advance in retailers' bread margins compared with baker-wholesalers' margins.

Retail margins are not available by type and size of stores. But trade reports for 100 cities indicated that prices of bread sold under a store's own label since 1957 were about 4 cents per pound loaf below retail prices of wholesale bakery brand bread. These lower prices, the large volume of super markets, and the streamlined distribution system of bakeries serving them suggest lower gross retail margins on proprietary-brand breads.

Retail margins of house-to-house bakeries and retail bakeries also are unknown. Here the amount of personal selling and other services per pound of product reaches its maximum and it is reasonable to expect that the retail margin would exceed that of any other segment of the bread baking industry.

SELECTED REFERENCES

Other reports on marketing margins for white bread are listed below. Beginning in 1955, figures in these reports may differ from the revised figures in this report.

(1) Blackmore, E. W.
1948. Farm-to-retail margins for white flour and white bread. U.S. Bur. Agr. Econ., 16 pp., illus.

(2) Eiland, J. C.
1961. Marketing margins for white bread. Mktg. and Transportation Situation. 140: 30–36A. U.S. Agr. Mktg. Serv. (Reprinted.)

(3) Long, R. H., and Brensike, V. J.
1958. MARKETING MARGINS FOR WHITE BREAD. Mktg. and Transportation Situation. 130: 17–24. U.S. Agr. Mktg. Serv. (Reprinted.)

(4) Phillips, S. W.
1952. AN ANALYSIS OF PRICE SPREADS FOR WHITE BREAD. Mktg. and Transportation Situation. 106: 25–33, illus. U.S. Bur. Agr. Econ.

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(7) U.S. Agricultural Marketing Service
1957. FARM-RETAIL SPREADS FOR FOOD PRODUCTS. U.S. Dept. Agr. Misc. Pub. 741, 165 pp., illus. Sup. for 1956–60. 39 pp., January 1961.

APPENDIX

This publication was revised for two principal reasons: (1) It was brought up to date by including data since 1958, and (2) it gives revised estimates of margins, beginning in 1955, which reflect changes from 1954 to 1958 in Census of Manufactures data. These revisions are not great but are necessary to the task of measuring, as accurately as possible, average prices and margins for white bread.

Computations of the cost of wheat to the miller, mill sales value of flour, and cost of flour to the baker are adjusted to census data. The change in census data from 1954 to 1958 tended to raise these estimates of wheat and flour costs. This naturally affected bread margins, but revision in another basic factor had some counter effects.

Beginning about 1956, Bureau of Census data reflect what now is recognized as an increase in the flour extracted from a bushel of wheat. Through June 1957, data in table 2 reflect an extraction rate of 71.5 percent. Since then they reflect an extraction rate of 72.5 percent. This increase of 1 percentage point in the flour extraction rate reduced the wheat equivalent in a pound of bread from 0.894 to 0.882 pound, which in turn tended to reduce the farm value of wheat and the cost of wheat to the miller in a pound of bread.

The net effects of these revisions in prices and extraction rate on the earlier estimates of bread margins, beginning in 1955, were as follows:

1. Farm value tended to be slightly lower than the earlier estimates.
2. The miller's flour margin and "other" margins tended to be a little higher than formerly.
3. The baker-wholesale margin tended to be lower than the earlier estimate; the largest reduction for any year was in 1960—0.3 cent.

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